



County of San Diego
DEPARTMENT OF HEALTH SERVICES
COMMUNITY HEALTH SERVICE

July 1996

TO: Licensed Health Care Facilities and Home Health Agencies

SUBJECT: TUBERCULIN SKIN TESTING OF HEALTH FACILITIES' EMPLOYEES

Recommendations for tuberculin skin testing of health care workers have changed and the tuberculin skin testing guidelines we mailed in 1991 are now outdated.

Over the past two years, the Centers for Disease Control and Prevention (CDC)¹ and the Occupational Safety and Health Administration (OSHA)² have released new guidelines for screening of health care workers. Enclosed for your review is an excerpt (Attachment A) from a recent OSHA document outlining enforcement procedures for employee screening programs.

The attached protocol has been revised by the San Diego County TB Program to help facilities establish employee TB screening policies that are consistent with CDC and OSHA recommendations. You may discard previous guidelines developed by the County on this topic, dated January 1991. More frequent testing may be indicated if a TB risk assessment of your facility identifies high risk areas. The 1994 CDC guidelines explain how to conduct this assessment.

The following is a list of the major changes from the guidelines sent out by our Department in 1991:

1. Clarification of the use of the two-step method.
2. Deletion of procedure for requesting less frequent testing.
3. Reporting employees with positive skin tests (reactors or converters) is no longer requested in San

¹ "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994". These CDC guidelines were published in the Morbidity and Mortality Weekly Report (MMWR) October 28, 1994 / Vol.43/No.RR-13.

² OSHA Instruction CPL 2.106, Enforcement Procedures and Scheduling for Occupational Exposure to Tuberculosis. February 9, 1996.

Diego. However, reporting of unusual increases of employee conversions should continue.

If you have any questions, please feel free to call Evelyn Lancaster, TB Control Consultant/Educator, at 692-8620.

Sincerely,

Kathleen M. Moser, M.D., M.P.H.
TB Control Officer

KMM:EL:
attachments

COUNTY OF SAN DIEGO
DEPARTMENT OF HEALTH SERVICES

TUBERCULOSIS CONTROL PROGRAM
January 1996

**PROTOCOL FOR TUBERCULIN TESTING (MANTOUX) FOR
EMPLOYEES¹ OF LICENSED HEALTH CARE FACILITIES**

Section I. INITIAL EXAM:

Tuberculin skin testing should be performed using the Mantoux method (intradermal injection of 0.1 ml of 5 Tuberculin Units of purified protein derivative). The result should be read and recorded in millimeters of induration. A skin test need not be done IF the employee provides **documentation**² of a past positive Mantoux skin test reaction.

Facilities should consider two-step skin testing on all new hires who are skin test negative³ and have not been tested within the last year. Refer to excerpts from the CDC "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994" for a more complete discussion of this topic (Attachment B).

A. Employee with **documentation** of a past positive Mantoux:

1. Obtain the baseline chest x-ray report, or obtain a new chest x-ray if the report is not available.
2. Follow-up:
 - a. Evaluate for INH preventive therapy
 - b. Counsel regarding symptoms of and risk of developing active disease.
 - 1) No routine skin tests or chest x-rays are required in subsequent years; however,
 - 2) Schedule for an annual symptom review and clearance.

¹ Employee refers to an individual working in the facility, including paid employees, volunteers, or persons with "staff privileges".

² **DOCUMENTATION** means a written result which includes:

1. the **Type** of test (Mantoux vs Multiple puncture), AND
2. the **Date** of test, AND
3. the **Millimeters of Induration** (not redness).

³ This includes individuals you are testing to verify a history of a past positive skin test.

Section I. INITIAL EXAMS: cont.

B. Employee with unknown, past negative, or undocumented past positive skin test history:

1. Administer the Mantoux skin test.¹
2. Read the result in 48-72 hours.
3. Record the results in millimeters of induration.
(NOTE: redness does NOT count)
4. Follow-up:
 - a. Negative skin test:
 - 1) Schedule for annual Mantoux test.
 - b. Positive skin test:
 - 1) Obtain a chest x-ray and a medical evaluation for TB preventive therapy
 - 2) Counsel regarding symptoms of and risk of developing active disease.
 - a) No routine skin tests or chest x-rays are required in subsequent years; however,
 - b) Schedule for an annual symptom review and clearance.

Section II. ANNUAL EXAMS:

A. Employee with DOCUMENTED negative Mantoux skin test:

1. Administer the Mantoux skin test.
2. Read the result in 48-72 hours.
3. Record the results in millimeters of induration.
(NOTE: redness does NOT count)
4. Follow-up:
 - a. Negative skin test:
 - 1) Schedule for annual Mantoux test.
 - b. Positive skin test:
 - 1) Obtain a chest x-ray and a medical evaluation for TB preventive therapy.
 - 2) Investigate reason for the conversion and follow-up as indicated.
 - 3) Counsel regarding symptoms of and risk of developing active disease.
 - a) No routine skin tests or chest x-rays are required; however,
 - b) Schedule for an annual symptom review and clearance.

B. Employees with a DOCUMENTED positive Mantoux skin test:

1. No annual Mantoux or Chest x-ray.
2. Perform annual symptom review and clearance.

¹ Mantoux testing should be placed, read, and interpreted by staff who have had specific Mantoux skin test training. Staff should not give or read their own tests. Mantoux skin test classes are offered at no charge by the TB Control Program, call 692-8620 to register.

Section III. Less Frequent Tuberculosis Screening:

Title 22 - Section 70723 (Attachment C) has a procedure for less frequent testing; however, **the minimum screening frequency, under OSHA and CDC guidelines, is annually.**

Section IV. Reporting to Department of Health, TB Control:

A. Active TB or Suspected Active TB:

Persons diagnosed with active or suspected active TB are reportable within **one day** of diagnosis or suspicion under Title 17 California Code of Regulations, Section 2500.

1. Active TB (verified by positive culture)
2. Suspect Active TB (suspicion based on laboratory or clinical evidence)

To report call: 692-8610.

B. Positive Mantoux Skin Test (converter or reactor):

Individuals:

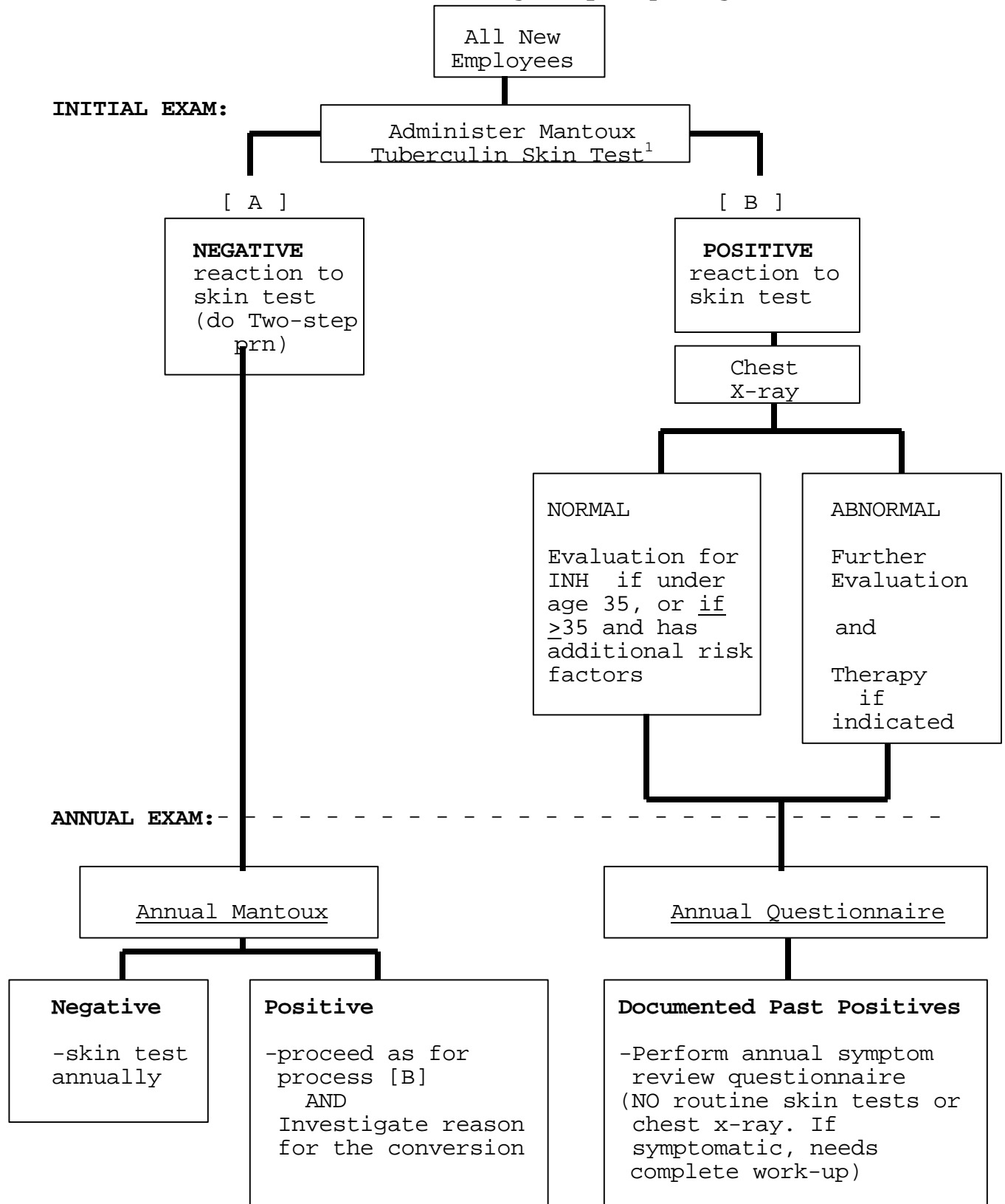
Only persons 5 years old and younger with a positive skin test and negative chest x-ray are reportable in San Diego County. Do not report individual skin test converters or reactors over the age of five (5).

Outbreaks:

Under Title 17 California Code of Regulations, Section 2502, "any undue prevalence" of infectious or parasitic disease shall be promptly reported to the local health department. Therefore any unusual occurrence of skin test conversions within a facility should be reported to TB Control.

To report unusual occurrence of converters, call: 692-8620

Mantoux Skin Testing Frequency Diagram



¹ See guidelines: Section 1. Initial Exam

Annual Tuberculosis Symptom Review Questionnaire
(for documented Mantoux skin test reactors)

1. Employer record the DOCUMENTED positive intradermal (Mantoux) reaction and follow-up chest x-ray results below:

Mantoux PPD : _____ mm / Date: _____ Chest x-ray date: _____ () Normal () Abnormal

INH Preventive Therapy: ☐ Took () months of INH ☐ Refused INH ☐ Not eligible

Employee's name: _____ Today's date: _____

Employee's DOB: _____ Work Location: _____

TO BE COMPLETED BY EMPLOYEE:

Have you experienced any of the following TB symptoms recently:

- | Yes | No | |
|-----|-----|--|
| () | () | 1. Chronic cough (more than two weeks in duration). |
| () | () | 2. Bring up sputum every day for one week or more. |
| () | () | 3. Chronic feeling of fatigue (more that two weeks in duration). |
| () | () | 4. Fever (more than one week in duration). |
| () | () | 5. Night sweats. |
| () | () | 6. Unexplained weight loss (8 pounds or more). |
-

FOR FACILITY USE:

- () 1. Employee reminded to report TB symptoms if they occur, TB Clearance given.
- () 2. Problem noted - see comments
Comments: _____

Date: _____

Signature of reviewer: _____

Excerpts from:

OSHA 2.106 - Enforcement Procedures and Scheduling for Occupational Tuberculosis

Exposure to

OSHA Instruction CPL 2.106 (sections referring to skin testing)

H. Inspection Scheduling and Scope

1. The evaluation of occupational exposure to TB shall be conducted in response to employee complaints, related fatality/catastrophes, or as part of all industrial hygiene inspections conducted in workplaces where the CDC has identified workers as having a greater incidence of Tb infection than in the general population. The degree of risk of occupational exposure of a worker to TB will vary based on a number of factors discussed in detail by the CDC. These workplaces have been the subject of reports issued by the CDC which provide recommendation for the control of tuberculosis. Specifically, these workplaces are as follows:

- a. health care facilities
- b. correctional institutions
- c. long-term care facilities for the elderly
- d. homeless shelters
- e. drug treatment centers

L. Violations : e. 2. Medical Surveillance:

a. Initial Exams. The employer, in covered workplaces shall offer TB skin tests (at no cost to the employees) to all current potentially exposed employees and to all new employees prior to exposure. A two-step baseline shall be used for new employees who have an initially negative PPD test result and who have not had a documented negative TB skin test result during the preceding 12 months. TB skin tests shall be offered at a time and location convenient to workers. Follow-up and treatment evaluations are also to be offered at no cost to the workers.

Note: The reading and interpretation of the TB skin tests shall be performed by a qualified individual as described in the CDC Guidelines.

- b. Periodic Evaluations: TB skin testing shall be conducted every three (3) months of workers in high risk categories, every six (6) months for workers in intermediated risk categories, and annually for low risk personnel (The CDC has defined the criteria for high, intermediate, and low risk categories). Workers with a documented positive TB skin test who have received treatment for disease or preventive therapy for infection are exempt from the TB ski test but must be informed periodically about the symptoms of TB and the need for immediate evaluation of any pulmonary symptoms suggestive of TB by a physician or trained health care provider to determine if symptoms of TB disease have developed.

CDC: Excerpts from:

"Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 1994"

II. 3. Screening HCWs for active TB

- "Administrators of health-care facilities should ensure that physicians and other personnel not paid by, but working in, the facility receive skin testing at appropriate intervals for their occupational group and work location."
- "During the pre-employment physical or when applying for hospital privileges, HCWs who have potential for exposure to M. tuberculosis, including those with a history of BCG vaccination, should have baseline PPD skin testing performed. For HCWs who have not had a documented negative PPD test result during the preceding 12 months, the baseline PPD testing should employ the two-step method" [including persons you are testing to verify a history of a past positive skin test]; "this will detect boosting phenomena that might be misinterpreted as a skin-test conversion. Decisions concerning the use of the two-step procedure for baseline testing in a particular facility should be based on the frequency of boosting in that facility."
- "HCWs who have a documented history of a positive PPD test, adequate treatment for disease, or adequate preventive therapy for infection, should be exempt from further PPD screening unless they develop signs or symptoms suggestive of TB."

II. 4. b. Routine and follow-up chest radiographs

- "HCWs with positive PPD test results should have a chest radiograph as part of the initial evaluation of their PPD test; if negative, **repeat chest radiographs are not needed unless symptoms develop that could be attributed to TB.**"

II. 6. The booster phenomenon

The ability of persons who have TB infection to react to PPD may gradually wane. For example, if tested with PPD, adults who were infected during their childhood may have a negative reaction. However, the PPD could boost the hypersensitivity, and the size of the reaction could be larger on a subsequent test. This boosted reaction may be misinterpreted as a PPD test conversion from a newly acquired infection. Misinterpretation of a boosted reaction as a new infection could result in unnecessary investigations of laboratory and patient records in an attempt to identify the source case and in unnecessary prescription of preventive therapy for HCWs. Although boosting can occur among persons in any age group, the likelihood of the reaction increases with the age of the person being tested.

When PPD testing of adults is to be repeated periodically (as in HCW skin testing programs), two-step testing can be used to reduce the likelihood that a boosted reaction is misinterpreted as a new infection. Two-step testing should be performed on all newly employed HCWs who have an initial negative PPD test result at the time of employment and have not had a documented negative PPD test result during the 12 months preceding the initial test. A second test should be performed 1-3 weeks after the first test. If the second test is positive, this is most likely a boosted reaction, and the HCW should be classified as previously infected. If the second test result remains negative, the HCW is classified as uninfected, and a positive reaction to a subsequent test is likely to represent a new infection with M.tuberculosis.

Title 22

BARCLAYS CALIFORNIA CODE OF REGULATIONS

Licensing and Certification of Health Facilities and Referral Agencies

§ 70723. Employee Health Examinations and Health Records.

(a) Personnel evidencing signs or symptoms indicating the presence of an infectious disease shall be medically screened prior to having patient contact. Those employees determined to have infectious potential as defined by the Infectious Control Committee shall be denied or removed from patient contact until it has been determined that the individual is no longer infectious.

(b) A health examination, performed by a person lawfully authorized to perform such an examination, shall be required as a requisite for employment and must be performed within one week after employment. Written examination reports, signed by the person performing the examination, shall verify that employees are able to perform assigned duties.

(1) Initial examination for tuberculosis shall include a tuberculin skin test using the Mantoux method using a 5 Tuberculin Unit dose of PPD tuberculin stabilized with tween-80, the result of which is read and recorded in millimeters of induration. If the result is positive, a chest film shall be obtained. A skin test need not be done on a person with a documented positive reaction to PPD but a baseline chest x-ray shall be obtained.

(2) Policies and Procedures that address the identification, employment utilization and medical referral of person with positive skin test including those who have converted from negative to positive shall be written and implemented.

(3) An annual skin test for tuberculosis shall be performed on those individuals with a previously documented negative tuberculin skin test. If an individual with a previously documented negative skin test has a subsequent positive reaction, a chest X-ray shall be obtained.

(4) Less frequent testing for tuberculosis, but never less than every four years, may be adopted as hospital policy when documented in writing as approved by the Infection Control Committee, the medical staff, and the health officer of the health jurisdiction in which the facility is located.

(c) Employee health records shall be maintained by the hospital and shall include the records of all required health examinations. Such records shall be kept a minimum of three years following termination of employment.

(d) Personnel shall be made aware of recommended vaccinations for preventable diseases that can be prevented by vaccination.

Note: Authority cited: Sections 208(a) and 1275. Health and Safety Code.
Reference: Section 1276, Health and Safety code.

HISTORY

1. Amendment of subsection (b) filed 3-313-90; effective thirtieth day thereafter (Register 80, No.11).

2. Amendment filed 6-15-89 as an emergency; operative 6-15-89 (Register 89, No. 25). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10-13-98.

3. Certificate of Compliance as to 6-15-89 order transmitted to OAL on 10-13-89 and disapproved by OAL on 11-13-89 (Register 89, No.46).

4. Amendment refiled 11-16-89 as an emergency; operative 11-16-89 (Register 89, No.46). A Certificate of Compliance must be transmitted to OAL within 120 days or the section will be reinstated as it existed prior to the emergency on 3-16-90.

5. Certificate of Compliance as to 11-16-89 order including amendment of subsections (a), (b) and (d) transmitted to OAL 3-15-90 and filed 4-16-90 (Register 90, No. 17).